UCD CENTRE FOR ECONOMIC RESEARCH

WORKING PAPER SERIES

2006

The Role of Health Insurance in Joint Retirement among Married Couples

Kanika Kapur, University College Dublin and
Jeannette Rogowski, University of Medicine and Dentistry of New Jersey

WP06/14

November 2006

UCD SCHOOL OF ECONOMICS
UNIVERSITY COLLEGE DUBLIN
BELFIELD DUBLIN 4

THE ROLE OF HEALTH INSURANCE IN JOINT RETIREMENT AMONG MARRIED COUPLES

KANIKA KAPUR AND JEANNETTE ROGOWSKI

Kanika Kapur is a Lecturer at the School of Economics, University College Dublin, Ireland and an Adjunct Economist at RAND, Santa Monica, California (Phone: +353 1 716 4624, Email: kanika.kapur@ucd.ie). Jeannette Rogowski is a University Professor at the Department of Health Systems and Policy at UMDNJ-School of Public Health, 335 George Street, Suite 2200, New Brunswick, NJ 08903 (Phone: (732) 235-9759, Email: rogowsje@umdnj.edu)

Note: The authors are able to make all data and programs available to researchers who obtain clearance to use the restricted version of the Health and Retirement Study data.

Acknowledgments

The authors are grateful to Paul Devereux, Alan Gustman, Lynn Karoly, Nicole Maestas, Constantijn Panis and Susann Rohwedder for helpful comments. Sandy Chien provided invaluable programming support. The authors would like to acknowledge support from Patricia Willis at the Department of Labor, and funding under contract number J-9-P-7-0045 from the Employee Benefits Security Administration at the Department of Labor.

THE ROLE OF HEALTH INSURANCE IN JOINT RETIREMENT AMONG MARRIED COUPLES

Abstract

This paper examines the role of employer provided health insurance in the retirement decisions of dual working couples. The near elderly have high-expected medical expenditures; therefore, availability of health insurance is an important factor in their retirement decisions. We determine if access to retiree health insurance for early retirement enables couples to time their retirement together – a behavior called "joint retirement." We find that wives' retiree health insurance more than doubles the propensity to retire jointly, suggesting that health insurance is an important consideration in coordinating retirement decisions among couples. Even though retiree health insurance has a substantial effect on joint retirement, its effect on overall employment patterns is modest, accounting for a 2 percentage point fall in employment.

Keywords: Retirement, health insurance

JEL code: I1, J32

THE ROLE OF HEALTH INSURANCE IN JOINT RETIREMENT AMONG MARRIED COUPLES

The majority of families facing retirement in the United States today include two workers.[1] With the baby-boom generation fast approaching retirement, the proportion of two-worker couples coordinating retirement choices will increase. Given these trends, an understanding of how married couples choose to time their retirements from the labor force will be critical to forecasting how the near elderly workforce in the United States will evolve in the coming years. While the early literature on retirement focused primarily on men, several recent studies have examined the retirement behavior of dual working couples. This research has demonstrated that couples tend to time their retirement together, possibly because they value joint leisure after retirement.

The availability of health insurance is a crucial factor in a couple's ability to retire jointly. Because the prevalence of poor health and chronic disease rises with age, the near elderly have higher expected medical expenses than younger cohorts. For instance, average annual health care expenditures for persons age 45-64 are 85% higher than for persons aged 18-44 (AHRQ, 2003). However, the near elderly can have problems gaining access to affordable health insurance. Few routes to public insurance exist: Unless blind or disabled, persons under age 65 cannot qualify for Medicare or Medicaid. Options for purchasing health insurance in the private-individual markets are often equally restrictive, largely because of high premium costs. Workers who leave an insured job have the option to continue group coverage—known as COBRA coverage--for up to 18 months by paying 102 percent of the premium. Only a small fraction of those eligible

1 Authors' calculations based on the Health and Retirement Survey data.

to purchase COBRA coverage do so, however.[2] Thus, prior to the age of Medicare eligibility (65), employment-based sources for their health insurance remain a valuable resource for the near elderly. In fact, among persons aged 54-64 in 2002, 73 percent were covered by employment-based sources of health insurance and 64 percent of early retirees in this age cohort had such coverage. Despite the importance of retiree health insurance, employer coverage for retirees has been declining over time. While 68 percent of retirees were covered by employer provided health insurance in 1992, only 45 percent of retirees had such coverage in 2002.[3]

In this paper, we examine the role of employer provided health insurance in the retirement decisions of dual working couples. In particular, we determine if access to retiree health insurance for early retirement enables couples to time their retirement together – a behavior that we call "joint retirement." We also analyze whether the influence of health insurance on joint retirement decisions depends on the health of the couple. Access to retiree health insurance for early retirees through either husband's or wife's employer should increase the propensity to retire jointly. To illustrate, for a typical near-elderly couple where the husband is two years older than the wife, the husband is eligible for Medicare two years earlier than his wife. If either spouse has health insurance that can cover the wife after retirement, the wife will be able to retire with her husband when he is sixty-five and maintain health insurance coverage. On the other hand, if the wife has employer provided health insurance, but no access to post-retirement health insurance, the wife will need to postpone retirement until she reaches sixty-five, reducing the couple's ability to jointly retire. This is a form of "job lock." We examine the effect

[2] The high cost of COBRA coverage ($7,000 to $8,0000 for family coverage) may be a deterrent for many, especially for those who have just left a job (Scandlen, 2001).
3 Authors' calculations based on the Health and Retirement Study.

of health insurance on joint retirement using data from the Health and Retirement Study (HRS). The HRS is particularly well suited to our study, since it contains detailed longitudinal information on labor force participation, retirement, health and health insurance for near elderly and elderly couples.

A growing literature has demonstrated that husbands and wives tend to retire at the same time.[4] Furthermore, spousal health and incentives are often found to affect retirement (Coile 2003, Johnson and Favreault 2001, Hurd 1990). There is limited research on the importance of post-retirement health benefits in joint retirement decisions for couples. A recent study by Blau and Gilleskie (2006) develops a structural model of work, retirement, and health utilization that accounts for the role of health benefits. This study finds small effects of retiree health insurance. However, a large body of literature has demonstrated that retiree health insurance facilitates early retirement among men[5]; therefore, further exploration into the role of retiree health insurance in the joint retirement of couples is merited. The advantage of the reduced form approach compared to a structural approach is in the transparency and simplicity of the modeling assumptions.[6] We use a reduced form approach that directly examines the effect of health insurance on joint retirement. Understanding joint retirement behavior is important in order to obtain accurate projections of labor force participation in the future. Furthermore, increased health insurance availability may increase the welfare of the near-elderly by making joint retirement more feasible.

[4] See for example, Hurd 1990, Gustman and Steinmeier 2000, Maestas 2001, Johnson and Favreault 2001.
[5] See, for example, Blau and Gilleskie (2001).
[6] Gruber and Madrian (2004) raise several concerns with Blau and Gilleskie's study. First, the sample is relatively small and had a much lower rate of health insurance coverage than a representative sample of HRS respondents, potentially leading to a downward biased estimate of health insurance. Second, the study sample is young for a study on retirement. Third, predictions from the structural model are quantitatively quite different from the data in several cases raising concern about the appropriateness of the assumptions in the structural model.

Conceptual Framework

We follow the conceptual framework laid out in the literature on joint retirement (Blau and Gilleskie, 2006; Maestas 2001) by postulating that a couple's utility depends on each member's choice of employment and other factors such as health and consumption. Couples may derive value from retiring together because of complementarities in leisure that enter the couples' utility function. The availability of health insurance reduces couples' exposure to the financial risk of high medical expenditures. However, health insurance availability depends on employment choice. Therefore, couples must choose whether each spouse will retire based on health insurance availability after retirement. The availability of retiree health insurance (whether or not the employer offers a health insurance plan to retirees) may also have a direct effect on an individual's ideal retirement date, independent of his spouse's retirement plans. However, the focus of this paper is on the behavior of joint retirement rather than the timing of individual retirement.[7]

Access to retiree health insurance reduces or eliminates couples' exposure to high medical expenses if they choose to retire. For couples who have at least one member under the age of 65, retiree health insurance would increase joint retirement since these couples could retire and maintain health insurance coverage until both members become eligible for Medicare at age 65. If, on the other hand, the couple had access to employer provided health insurance, but no retiree health insurance, at least one spouse with the employer provided health insurance plan would need to continue to work until the couple

[7] Descriptive statistics (that do not account for the censoring of retirement age) show that when a couple has access to retiree health insurance from the husband, both husband and wife are about one year younger at retirement compared to those couples where husbands do not have employer provided health insurance; however, there are no differences by wife's retiree health insurance status.

was over 65 to maintain health insurance benefits. For couples who are both over the age of 65 and hence eligible for Medicare, retiree health insurance is likely to play a smaller role. Even so, retiree health insurance can provide prescription drug coverage and other supplementary benefits that are valuable for an older population. Therefore, couples who lack retiree health insurance benefits but have employer provided health insurance may delay retirement for at least one member to ensure continued access to these supplemental benefits.

Data

Our analysis uses the HRS, a nationally representative biennial panel survey of individuals born from 1931 to 1941. We use the first six waves of the HRS (1992-2002). The HRS data have been linked to Social Security earnings histories and to employer pension plan data for the majority of the sample. Data are collected for sampled individuals and their spouses.

The HRS surveyed 4846 married couples in 1992. The data are restricted to observations where both members of the couple are working full-time at the baseline year and have non-missing data for our key analysis variables – health insurance and labor force participation, resulting in a sample of 1497 couples.[8] The analysis data set is structured as couple-year observations. Once one member of the couple retires, the couple exits the data set.[9]

[8] We need to restrict the sample to dual-working couples in order to study joint retirement behavior. However, this restriction may compromise the generalizability of our results if the profile of dual-working couples changes over time.

9 We do not model reentry into the labor force after partial or full retirement. We model only the first observed transition to retirement for a couple. Twelve percent of the couples have multiple observed transitions to retirement.

We measure retirement as a transition in the labor force status from full time work at the baseline year to self-reported part or full retirement at the next survey date.[10] We classify health insurance for couples using the following mutually exclusive variables defined separately for the husband and the wife: (a) holds own employer provided health insurance, but no retiree health insurance, (b) holds own employer provided health insurance and retiree health insurance, and (c) does not hold own employer provided health insurance. In 1992 and 1994, HRS measured retiree health insurance using a question that asks if the employer provided plan reported by the surveyed individual covers retirees. In 1996, HRS changed the wording of the question to ask if the surveyed individual could continue coverage to 65 if they left their job now. Ninety-one percent of employers that offer retiree health benefits provide coverage for both pre-65 and age 65+ retirees; therefore it is unlikely that this change in the HRS will have much impact on our results (Kaiser/Hewitt, 2002). In our analysis, we include year indicators to absorb the effect of changes in the survey instrument over time.[11]

We use linked, restricted access data from the Social Security administration based on the Social Security Earnings and Benefits File to construct measures of social security wealth. Linked data are available for 88 percent of our sample. In cases where linked data were not available, we used measures of social security wealth imputed as part of the RAND HRS-SSA project (StClair et al., 2002). The social security variables included in the RAND HRS-SSA data are household social security wealth in 1992,

10 Since employer provided health insurance is usually offered to full-time workers and not to part-time workers, we believe that this is the appropriate definition. However, we have reestimated our model with an alternative definition of retirement that allows for transitions from full time or part time work to full retirement. We find somewhat smaller effects of health insurance; however, this effect remains significant.

11 We have also estimated secondary models that include an interaction between an indicator variable for survey years from 1996 on with retiree health insurance to determine if the effect of retiree health insurance varies due to the change in survey instruments. The interaction was small and statistically insignificant suggesting that our results are not sensitive to the change in survey instrument.

projected household social security wealth at age 62, and projected household social security wealth at age 65. We used these variables to construct measures of household social security wealth at the baseline year and the gain in social security wealth obtained by delaying retirement past the follow-up survey year.[12]

We construct pension measures using self reported pension data and employer reports of pension benefits. Ongoing validation research suggests that self reported pension data are preferable to employer information for defined contribution (DC) plans. However, employer reports are likely to be a better measure of pension wealth for defined benefit (DB) plans. Therefore, we use self reported DC pension balances as our measure of DC pension wealth.[13] We use linked data from an employer survey of HRS respondents to construct measures of DB pension wealth. Employer provided pension data are non-missing for both members of a couple for 41 percent of our sample.[14] The employer-reported pension variables included in the RAND HRS-SSA data are employer pension wealth in 1992 from current and past jobs, projected pension wealth at age 62, and projected pension wealth at age 65. We used these variables to construct measures of pension wealth at the baseline year and the gain in pension wealth obtained by delaying retirement past the follow-up survey year using a method similar to the construction of

[12] For couples who were under the age of 62, we assumed that baseline social security wealth was equal to the wealth in 1992. For couples who were between the ages of 62 and 65, we assumed that baseline social security wealth was equal to wealth at 62, and for couples who were over the age of 65, we assumed that baseline social security wealth was equal to wealth at 65. The gain in social security wealth was calculated as the difference between baseline wealth and projected wealth at 65.

13 We used pension balances imputed by Gustman and Tabatabai (2003) to fill missing values.

[14] We reestimated the model on the sub-sample with non-missing DB pension balances and found a similar pattern of results; however, these results were less precise due to the lower sample size.

social security wealth.[15] We also include indicators for type of pension plan – DB plan, DC plan, or no plan that are constructed using self reports of pension benefits.

Table 1 contains weighted means for the analysis sample. The sample consists of 3370 couple-year observations. Neither member of the couple is observed retiring in 73 percent of the observations. We define a couple to have jointly retired when both members of the couple retire in the time between two consecutive interviews. Joint retirement is observed in 6 percent of couple-year observations. Husbands are more likely to retire first than wives, most likely because they are older than their wives, on average four years. While the table reports means for couple-year observations, which is the level of the analysis, it is also useful to examine the means for couple observations. We find that 12.3 percent of couples retire jointly, 27.4 percent of couples have the husband retiring first, and 16.2 percent of couples have the wife retiring first (not reported in tables).

Table 1 also shows that about half of husbands have retiree health insurance from their own jobs whereas only about one quarter of wives have retiree health insurance. Husbands' pension wealth is substantially higher than wives' pension wealth for both DB and DC plans. Husbands are also more likely to have a pension plan than their wives, and this difference is larger for DB plans than for DC plans. Husbands also have wages that are, on average, $5 per hour higher than their wives, and have almost six additional years of job tenure. Women may have interrupted careers during their childbearing years leading to shorter tenure than their husbands at the brink of retirement. In addition,

[15] Since DB pension wealth information is only available in 1992, this variable is potentially mismeasured for individuals who change jobs. In supplementary analyses, we have checked the sensitivity of our results to this measurement issue by estimating the DB pension wealth coefficients on the subsample that do not change jobs and by including an indicator for job change in our model. We find very similar results for the health insurance effects.

women are on average four years younger than their husbands. Both these factors may lead to women being "behind" their husbands in the accrual of retirement benefits and therefore, may impact their decision to retire jointly with their husbands.

Empirical Model

Our analysis focuses on the role of health insurance in enabling couples to retire jointly. We parameterize a couple's retirement outcome in each time period as a multinomial variable with the following outcomes: (a) joint retirement where both husband and wife retire between the baseline year and follow-up year, (b) husband retires but wife does not retire (c) wife retires but husband does not retire, and (d) neither husband nor wife retires.

Table 2 shows the descriptive relationship between health insurance and retirement outcomes. We hypothesize that couples with retiree health insurance should be more likely to retire jointly than couples with employer provided health insurance, but no retiree health insurance. Couples with no employer provided health insurance are free to time their retirement independent of health insurance considerations; however these couples may face tighter budget constraints that affect the timing of retirement. The simple tabulation in table 2 shows that husbands with retiree health insurance do not appear to retire jointly more frequently than husbands with employer provided health insurance with no retiree health insurance ($p=0.69$). However, husbands with retiree health insurance are about 4 percentage points more likely to retire before their wives than to continue working ($p=0.004$). Wives with retiree health insurance are about 3 percentage points more likely to retire jointly with their husbands compared to wives who have employer provided health insurance, but lack retiree health insurance ($p=0.02$).

Wives with retiree health insurance are no more likely to retire before their husbands (p=0.45) or to retire after their husbands (p=0.35). These descriptive patterns suggest that wives' retiree health insurance has a stronger effect on joint retirement than the husbands' retiree health insurance. However, multivariate analyses are necessary to determine if these descriptive patterns are robust to control variables.

We estimate a discrete time multinomial logit model of retirement. There are several advantages of the discrete time approach. This approach enables us to use data from couples who do not retire during the year. We are also able to update health insurance information and other explanatory variables to the appropriate year, rather than relying on baseline characteristics measured in first year of the survey. Furthermore, our measurement of retirement between survey dates implies that the analysis is less affected by seam bias in retirement reporting or errors in the retirement dates.

We assume that retirement behavior is determined by the following model:

$$\Pr(R_{ft} = j) = f(\alpha + \beta_1 HI_{hft} + \beta_2 HI_{wft} + \beta_3 X_{hft} + \beta_4 X_{wft} + \beta_5 Z_{ft})$$

In this model, retirement outcomes are denoted by R_{ft}, where f denotes the family and t denotes the time period. R_{ft} may take any of four values -- joint retirement, husband retires first, wife retires first, or neither spouse retires. The key variables of interest are husband's and wife's employer provided health insurance, denoted by the vector HI_{hft} for husband's health insurance and HI_{wft} for wife's health insurance. HI_{hft} includes an indicator for the husband having retiree health insurance offered through his own employer and an indicator for the husband having no employer provided health insurance through his own employer. The omitted category is the husband having employer

provided health insurance, but no retiree health insurance from his own employer. HI_{wft} for wife's employer provided health insurance is defined analogously.

Our analysis assumes that health insurance is exogenously determined from the employment decision. In other words, individuals do not choose health insurance based on their expected retirement choices. There are several reasons that we believe that this assumption is valid. First, employees must typically satisfy tenure requirements before qualifying for retiree health benefits. The KFF-HRET (2005) employer survey found that 89 percent of employers had age and tenure requirements for retiree health benefit eligibility. The most frequent tenure requirement was 10 years of service (49 percent), followed by 15 years of service (14 percent). In our data, individuals choose jobs well before their retirement decisions (average job tenure is 19 years for male retirees and 13 years for female retirees). Therefore, it is usually impossible for individuals to change jobs close to their retirement dates in order to obtain retiree health benefits, since in most jobs, they would not be eligible for benefits.

Second, there is evidence that individuals are often not well informed about the details of their employer benefit packages. For example, research has shown only about half of HRS respondents can correctly identify their retiree benefits, further suggesting that individuals are not as forward looking as we may believe (Gustman and Steinmeier, 2001).

Third, since the early 1990s, employers have been scaling back on the offer of retiree health insurance and on the generosity of benefits for retirees (KFF-HRET, 2005). Many employers who continued to provide these benefits began reserving the right to alter the retiree health insurance offer so that these benefits became less certain for active

workers. Individuals who wanted to shop for retiree benefits would have no guarantee that the plan would be around when they decided to retire.

Fourth, we examine job transitions in our data to document the frequency of transitions into jobs that provide retiree health insurance. If there are few transitions into jobs that offer health insurance, presumably that can be interpreted as evidence that the endogeneity of retiree health insurance is not a pressing concern. Our data showed that only 2.2 percent of men and 1.9 percent of women switched from jobs that did not offer retiree health benefits to jobs that offered these benefits. Thus, the empirical evidence suggests that there are very few job transitions that are consistent with the notion of shopping for retiree health benefits. Therefore, like most of the existing literature (see for example Blau and Gilleskie (2006)), we assume that health insurance choice is exogenously determined.

The control variables in the model include a full set of demographic controls for husband and wife characteristics (X_{hft} and X_{wft}). These include categories for the husband's age and the wife's age. Since the gap between the husband's and wife's age is likely to be important in determining joint retirement, we have also included interactions between husband and wife age categories. Other control variables include husband and wife education (less than high school, high school, or college) and husband and wife health parameterized using self reports of fair or poor health. Poor health is likely to reduce productivity in the work force and the ability to work, and therefore to increase the propensity to retire. Couples where one member has poor health may be more likely to retire jointly if care giving is important. On the other hand, medical care for a health condition is costly; therefore individuals may have an incentive to keep working to pay

for health care. We would expect health insurance to play a role in determining whether couples with adverse health can retire jointly. We test this hypothesis by including interactions of health insurance and health in the model. We have also included control variables for the husband's and wife's job characteristics. These include wages, pension benefits, and job tenure. Since the opportunity cost of retirement is higher for high wage workers, we would expect high wage workers to be less likely to retire.[16] On the other hand, DC employer provided pension benefits should increase workers' ability to retire by providing resources for retirement. The effect of DB benefits on retirement depends on the expected gain from waiting to retire – a higher expected gain should reduce retirement in the current time period. When pension wealth data are missing, we include an indicator for missing data in the model and estimate the model on the full sample.[17] The vector Z_{ft} includes family level variables such as race, social security wealth, household wealth, length of time between interviews, and year indicators. All models are weighted by household weights provided in the HRS and standard errors are adjusted for multiple observations per household.

Results

The results from the multinomial logit models of retirement are reported in table 3.[18] We report relative risk ratios (RRR) for the outcomes – husband retires first, wife

16 It can be argued that wages are endogenous to the retirement choice. We reestimate the models in the paper without controls for wages and find very similar results for the health insurance variables of interest. Also, models with additional job controls that included industry indicators, occupation indicators, and tenure yielded similar results.

17 If we restrict the sample to observations where we have non-missing pension data, we find imprecise estimates of health insurance. This loss of precision is solely due to the change in the sample rather than the inclusion of pension controls since we continue to find imprecise health insurance effects in the restricted sample even without the inclusion of pension controls in the model.

18 Using a Hausman test, we confirmed that the Independence of Irrelevant Alternatives assumption of the multinomial logit model is not violated in these models.

retires first, and neither retires, relative to the baseline outcome of joint retirement. The relevant test of significance compares the RRR to 1.

Effect of Health Insurance on Joint Retirement

We find that husbands' health insurance has a statistically insignificant effect on retirement outcomes in table 3. However, the presence of a wife's retiree health insurance significantly increases the probability of joint retirement relative to the husband retiring first. Couples where wives have retiree health insurance are also significantly more likely to retire jointly rather than to postpone retirement. Predicted probabilities based on model estimates show that the propensity to retire jointly increases by 3.4 percentage points, from 4.1 percent if all wives had employer provided health insurance, but no retiree health insurance to 7.5 percent if they had retiree health insurance, almost doubling the effect of health insurance. The predicted probability of continued work for the couple shifts from 74.5 percent to 72 percent. A test for the inclusion of wives' health insurance in the multinomial logit model confirms that this variable belongs in the model ($p=0.02$). Including controls for pension benefits and controls for social security wealth in table 3 have little effect on the health insurance results (not reported in tables). Since wives are on average four years younger than their husbands, wives' retiree health insurance plays an important role in enabling couples to retire jointly.

Couples where wives do not have employer provided health insurance are significantly less likely to have husbands retiring first relative to jointly retiring. Predicted probabilities based on model estimates show that 4.1 percent of couples with employer provided health insurance without retiree benefits retire jointly. In contrast, 5.9 percent of couples where the wife does not have employer provided health insurance

retire jointly. A priori, it was unclear how employer provided health insurance would affect joint retirement relative to no employer provided health insurance. These results suggest that the lack of employer provided health insurance increases joint retirement since couples can choose to retire together unconstrained by health insurance considerations. However, it is also possible that wives who lack employer provided health insurance face a lower income loss from retiring or have "worse" jobs in nonpecuniary dimensions that encourage them to leave the labor force with their husbands.

We conducted a number of specification checks that are not reported in the tables. First, we reran the models using measures of health insurance coverage from the current job only. These measures are available for 1996, 1998, 2000, and 2002. The health insurance measure used in the main models does not specify whether the health insurance is from a current or previous job. We found that the results for the health insurance measures were very similar to the results from the main model. In particular, for wives' retiree health insurance, the RRR for husband retires first versus joint retirement becomes 0.474 (p=0.014) for the specification reported in table 3. We do not report these results as our main results since we prefer a health insurance measure that is consistently defined over time. Second, we explored using a variable that measured whether or not retiree health insurance could cover the spouse; however, this variable was missing for most of the sample, and therefore could not be used in the analysis.[19] Third, we included interactions between the health insurance variables and health measures available in the HRS, including number of medical conditions for the husband and wife, number of

[19] KFF-HRET(2005) reports that 98 percent of spouses of retirees are offered retiree health insurance, conditional on the employer offering retiree health insurance to the worker.

functional limitations, and self-reported health. We did not find any statistically significant interactions in our models. Fourth, we included interactions between the health insurance variables and age categories. In particular, we tested the hypothesis that couples who were over the age of 65 and eligible for Medicare would have a smaller retirement response to employer provided health insurance incentives than couples who were under the age of 65 and relied on employer provided health insurance as their sole source of health insurance coverage. While we found that the interactions between an indicator for over 65 and health insurance did have the correct sign, the interactions were statistically insignificant. Since only about 10 percent of our sample consisted of couples over 65 who were still working, we possibly lack the sample size to estimate this interaction reliably.

Effect of Other Factors on Joint Retirement

We find a large and statistically significant effect of race on joint retirement. Non-white couples are substantially less likely to retire jointly than white couples. We also find some evidence that health affects joint retirement. Husbands' health, measured by self reported fair or poor health, increases the probability that couples will retire jointly relative to wives retiring first alone, and increases the probability that couples jointly retire relative to neither retiring. Similarly, wives' poor health increases the probability that wives will retire jointly with husbands rather than husbands retiring alone first, and increases the probability that couples retire jointly relative to neither retiring. These results suggest that poor health inhibits work, and are consistent with the results found in the literature. These results also support the notion that care-giving may be a factor in determining joint retirement among couples with adverse health.

The type of pension plan and pension wealth are jointly statistically significant in the joint retirement model ($p<0.01$).[20] We find that husbands with DB plans are more likely to jointly retire than to have their wives retire first alone, although this result is only significant at the 10 percent level. Wives' DB plans appear to reduce the probability of joint retirement relative to all other retirement options. Since wives are younger than their husbands, and are less likely to have been vested in their DB plans, their retirement timing is more likely to be based on pension considerations, thus reducing their ability to time their retirement with their husbands. DB pension wealth also has a significant effect on joint retirement. Husbands who have higher expected DB pension wealth gains from postponing retirement are more likely to have wives who retire first alone. Wives who have higher expected DB pension wealth gains from postponing retirement are relatively less likely to retire first alone compared to jointly retiring. Predictions based on model estimates show that the predicted probability of wives retiring first alone falls from 8 percent to 4 percent when the DB pension wealth gains increases from the average in the sample to the 75th percentile. Higher social security wealth also increases couples' propensity to retire jointly relative to the husband retiring first alone.

Conclusion

Availability of retiree health insurance increases couples' ability to time retirement together. However, this effect appears to exist only for wives' retiree health insurance, not for husbands' retiree health insurance. Wives' retiree health insurance more than doubles the propensity to retire jointly, suggesting that health insurance is an important consideration in coordinating retirement decisions among couples. Even though retiree health insurance has a substantial effect on joint retirement, its effect on

[20] Including interactions of the pension variables with wave indicators did not change the results.

overall employment patterns is modest, accounting for a 2 percentage point fall in employment from a base of 75 percent. Our results are broadly consistent with Blau and Gilleskie's (2006) findings of a stronger health insurance effect for women than for men. Our findings suggest that even though health insurance does not have a large effect on overall employment patterns of couples, it does play an important role in joint retirement decisions. Couples appear to have "job lock" with respect to retirement if the wife, who is typically younger than the husband, does not have retiree health benefits.

Retiree health insurance from women's jobs may be a more important factor in joint retirement decisions than health insurance from men's jobs since women are typically younger than their husbands and need health insurance to cover themselves if they retire before 65. While retiree health insurance from their husbands may potentially cover them, it is possible that premiums for dependent coverage are high enough to discourage retirees from covering their spouses on their policies.

Over the past decade, the provision of retiree health benefits has steadily declined. Recent legislation that adds a prescription drug benefit to Medicare may save employers enough in retiree health benefit costs to slow this trend. However, even if firms maintain their retiree health benefits, an increase in cost sharing requirements and premiums appears inevitable (Kaiser/Hewitt, 2002). These trends suggest that couples will increasingly find it difficult to time their retirement together and yet maintain affordable health insurance coverage for both spouses.

References

Agency for Healthcare Research and Quality. 2000 Medical Expenditure Panel Survey - Table Compendium. August 2003., Rockville, MD. http://www.meps.ahrq.gov/CompendiumTables/TC_TOC.HTM

Blau, David and Donna Gilleskie, "Retiree Health Insurance and the Labor Force Behavior of Older Men in the 1990's," Review of Economics and Statistics 83(1): 64-80, February 2001.

Blau, David, M. and Donna B. Gilleskie, "Health Insurance and Retirement of Married Couples," Forthcoming Journal of Applied Econometrics, 2006.

Coile, Courtney, "Retirement Incentives and Couples' Retirement Decisions," Topics in Economic Analysis and Policy 4(1): article 17, 2004.

Gustman, Alan and Thomas Steinmeier. 2001. "What People Don't Know about their Pension and Social Security" In William G. Gale, John B. Shoven and Mark J. Warshawsky, editors, Public Policies and Private Pensions, Washington D.C. Brookings Institution.

Gustman, Alan L., and Steinmeier, Thomas L., 2000. "Retirement in a Family Context: A Structural Model for Husbands and Wives". Journal of Labor Economics 18: 503-45.

Gustman, Alan L., and Nahid Tabatabai., 2003. Imputations for Pension Related Variables in HRS 1992, HRS 1994, HRS 1996, HRS 1998, and HRS 2000. Researcher contribution to HRS website: www.hrsonline.isr.umich.edu

Gruber, Jonathan and Brigitte C. Madrian. 2004. “Health Insurance, Labor Supply, and Job Mobility: A Critical Review of the Literature,” in Health Policy and the Uninsured, edited by Catherine G. McLaughlin, pp. 97-177, The Urban Institute Press, Washington D.C.

Hurd, Michael, 1990. “The Joint Retirement Decisions of Husbands and Wives,” in David A. Wise (ed.), *Issues in the Economics of Aging*, Chicago: University of Chicago Press, pp. 231-258.

Johnson, Richard W., and Favreault, Melissa M., 2001. “Retiring Together or Working Alone: The Impact of Spousal Employment and Disability on Retirement Decisions”. CRR Working Paper 2001-01. Center of Retirement Research at Boston College.

Kaiser Family Foundation and Hewitt Associates. The Current State of Retiree Health Benefits. Findings from the Kaiser/Hewitt 2002 Retiree Health Survey. December 2002.

Kaiser Family Foundation and Hewitt Associates “Retiree Health Benefits Now and in the Future: Findings from the Kaiser/Hewitt 2003 Survey on Retiree Health Benefits” January 2004.

Maestas, Nicole, “Labor, Love and Leisure: Complementarity and the Timing of Retirement by Working Couples,” Working Paper, Department of Economics, University of California, Berkeley, December 2001.

Scandlen, Greg *Helping Laid-Off Workers Keep Insurance*, Brief Analysis No. 373 (Washington: National Center for Policy Analysis, Oct 4, 2001)

StClair, Patricia, Delia Bugliari, Philip Pantoja, Serhii Ilchuk, Gabriela Lopez, Steven Haider, Michael Hurd, David Loughran, Constantijn Panis, Monika Reti, Julie Zissimopoulos. SSA-HRS Data Documentation, PM-1172-SSA. June 2002.

TABLE 1: MEANS IN THE HEALTH AND RETIREMENT SURVEY (1992-2002)
Couple-year level data

Variable	Mean
Retirement Outcome	
Couple retires jointly	5.94%
Husband retires first	13.34%
Wife retires first	7.83%
Neither retires	72.89%
Health Insurance	
Husband has retiree HI	49.31%
Husband has EPHI, no retiree HI	20.59%
Husband has no EPHI	30.10%
Wife has retiree HI	26.02%
Wife has EPHI, no retiree HI	18.10%
Wife has no EPHI	55.88%
Demographic Characteristics	
Husband Age	56.77
Wife Age	52.70
Nonwhite	8.84%
Husband: Self reported health fair/poor	10.17%
Wife: Self reported health fair/poor	7.47%
Employment Characteristics	
Husband wage	17.83
Wife wage	12.15
Husband tenure	16.58
Wife tenure	10.98
Husband has DB plan	46.88%
Husband has DC plan	37.88%
Wife has DB plan	37.23%
Wife has DC plan	32.96%
Husband DB pension wealth	74573.40
Husband DB pension gain	6565.12
Wife DB pension wealth	28555.00
Wife DB pension gain	9206.12
Husband DC pension wealth	33613.22
Wife DC pension wealth	13726.32
Social security wealth	141255.30
Social security gain	38836.15
Household IRA/Keogh wealth	34859.45
Other household wealth	252493.60
Number of Observations	3370

TABLE 2: TABULATION OF HEALTH INSURANCE AND RETIREMENT OUTCOMES

	Husband's health insurance		
	No EPHI	EPHI, no retiree HI	Retiree HI
Couple retires jointly	4.84%	6.08%	6.55%
Husband retires first	13.68%	9.94%	14.55%
Wife retires first	8.15%	8.29%	7.43%
Neither retires	73.32%	75.68%	71.46%

	Wife's health insurance		
	No EPHI	EPHI, no retiree HI	Retiree HI
Couple retires jointly	6.04%	4.04%	7.05%
Husband retires first	12.20%	15.87%	14.03%
Wife retires first	8.80%	5.96%	7.02%
Neither retires	72.96%	74.12%	71.90%

TABLE 3: SELECTED ESTIMATES FROM MULTINOMIAL LOGIT MODEL OF JOINT RETIREMENT

	Husband retires first /Jointly retire			**Wife retires first /Jointly retire**			**Neither retire /Jointly retire**		
	RRR	SE	P-Value	RRR	SE	P-Value	RRR	SE	P-Value
Health Insurance									
Husband has retiree HI	1.387	0.366		0.820	0.233		0.847	0.194	
Husband has no EPHI	1.232	0.399		1.187	0.398		1.205	0.341	
Wife has retiree HI	0.466	0.141	*	0.577	0.205		0.491	0.135	**
Wife has no EPHI	0.528	0.159	*	1.079	0.373		0.654	0.183	
Selected Demographic Variables									
Nonwhite	3.325	1.271	**	4.151	1.677	**	2.718	0.979	**
Husband: Fair/Poor health	0.754	0.215		0.509	0.175	*	0.560	0.142	*
Wife: Fair/Poor health	0.571	0.185		1.453	0.470		0.428	0.121	**
Selected Employment Variables									
Husband has DB plan	0.448	0.287		0.336	0.215		0.491	0.252	
Husband has DC plan	0.929	0.997		2.697	2.883		1.753	1.671	
Wife has DB plan	2.531	1.238		2.480	1.340		2.101	0.938	
Wife has DC plan	0.766	0.596		0.317	0.278		1.100	0.757	
Husband DB pension wealth (in logs)	1.021	0.052		1.003	0.050		0.999	0.040	
Husband DB pension gain (in logs)	1.031	0.028		1.103	0.033	**	1.032	0.024	
Wife DB pension wealth (in logs)	0.955	0.039		1.011	0.047		0.977	0.036	
Wife DB pension gain (in logs)	0.950	0.031		0.872	0.031	**	0.959	0.028	
Husband DC pension wealth (in logs)	0.954	0.098		0.898	0.091		0.924	0.084	
Wife DC pension wealth (in logs)	1.031	0.086		1.129	0.105		1.028	0.075	
Social security wealth (in logs)	0.877	0.047	*	0.958	0.055		0.948	0.046	
Social security gain (in logs)	1.020	0.061		0.971	0.063		0.977	0.053	
Other Variables									
Household IRA wealth (in logs)	1.013	0.021		1.015	0.024		1.001	0.018	
Other household wealth (in logs)	0.954	0.070		0.926	0.073		0.898	0.061	

Note 1: RRR denotes relative risk ratios. SE denotes standard errors

Note 2: * denotes significance at the 5% level; ** denotes significance at the 1% level

Note 3: The model includes all variables discussed on pages 12-13 . Selected RRRs are reported here.